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ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR 09/894,121 06/29/2001 Q64938 6181 Tsuyoshi Kitahara **EXAMINER** 7590 01/21/2005 SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC TUGBANG, ANTHONY D 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3202 PAPER NUMBER ART UNIT 3729

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



	Application N .	Applicant(s)
Office Action Summary	09/894,121	KITAHARA, TSUYOSHI
	Examiner	Art Unit
	A. Dexter Tugbang	3729
The MAILING DATE of this communication app Period f r Reply	ears on the cover sheet with the c	orresp ndence address
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).		
Status		
1) Responsive to communication(s) filed on <u>05 November 2004</u> .		
2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.		
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is		
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4)⊠ Claim(s) <u>14,16,18 and 21-31</u> is/are pending in the application.		
4a) Of the above claim(s) <u>25-29</u> is/are withdrawn from consideration.		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>14,16,18,21,23,30 and 31</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction and/or	r election requirement.	
Application Papers		
9) The specification is objected to by the Examine	r.	
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).		
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.		
Priority under 35 U.S.C. § 119		
12) △ Acknowledgment is made of a claim for foreign a) △ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents 2. △ Certified copies of the priority documents 3. ☐ Copies of the certified copies of the priori	s have been received. s have been received in Applicati	on No. <u>09/394,706</u> .
application from the International Bureau (PCT Rule 17.2(a)).		
* See the attached detailed Office action for a list of the certified copies not received.		
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	ate
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date	6) Other:	atent Application (PTO-152)

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#### **DETAILED ACTION**

### Response to Amendment

1. The applicant(s) amendment and response filed on 11/5/04 has been fully considered and made of record.

### Election/Restrictions

2. Claims 25-29 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 3/3/04.

### Claim Objections

- 3. Claims 22 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In the amendment filed on 11/5/04, each of Claims 22 and 24 depend from previously canceled Claim 15. Claims 22 and 24 have not been further treated on their merits.
- 4. Claims 16 and 18 are objected to because of the following informalities: the preambles of each are inconsistent with the preamble of Claim 14.

The examiner suggests replacing the phrase of "piezoelectric vibrator unit set forth in claim 14," (line 1 of each) with the phrase of –method of manufacturing according to claim 14,--.

Appropriate correction is required.

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## Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 14, 16, 18, 21, 23, 30 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In Claim 14, the phrases of "a gap is formed between the first conductive material layer and the second conductive material layer" (lines 10-11) and "such that the gap is filled with the piezoelectric material" (lines 16-17), are new matter. The specification and drawings, as originally filed, do not provide support for any "gap" that is defined between the first conductive material layer and the second conductive material layer. Furthermore, the specification and drawings, as originally filed, do not provide support for any gap that gets "filled with the piezoelectric material". There is no description or even a mention in the disclosure to support any active step of filling a gap with any piezoelectric material.

- 7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
- 8. Claims 14, 16, 18, 21, 23, 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In Claim 14, it unclear from the disclosure what is meant by the phrases of "a gap is formed between the first conductive material layer and the second conductive material layer" (lines 10-11) and "such that the gap is filled with the piezoelectric material" (lines 16-17).

Furthermore, the recitation of "the obtained green sheet" (line 15) lacks positive antecedent basis and is confusing as to whether or not the "obtained green sheet" has another "first region" and another "second region". The step of "repeating step (a)...material" (lines 15-17) is misleading because the recitation by itself, while implying that another "obtained green sheet" is formed, does not imply in anyway that the "obtained green sheet" has a first and second region.

Further confusion is raised with the recitation of "repeating the steps (b) and (c)" (line 18), as this step is also misleading and confusing because it is unclear as to whether or not any subsequent green sheets that are formed contain any first and second regions, as well as any first and second conductive material layers.

9. NOTE: No art rejections have been applied to Claims 14, 16, 18, 21, 23, 30 and 31, since there are a great deal of confusion and uncertainty as to the proper interpretation of the limitations of claims for the reasons set forth above. Therefore, it would not be proper to reject such claims on the basis of prior art. See MPEP 2173.06.

### Response to Arguments

10. Applicant's arguments with respect to claims 14, 16, 18, 21, 23, 30 and 31 have been considered but are most in view of the new ground(s) of rejection set forth above.

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#### Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Dexter Tugbang

Primary Examiner
Art Unit 3729

adt

January 18, 2005